

TABLE OF CONTENTS

Chapter 1	Authority and Organization	1-1
1.1	AUTHORITY	1-1
1.2	NTIA AND ITS FREQUENCY MANAGEMENT SUPPORT ORGANIZATION	1-4
1.3	INTERDEPARTMENT RADIO ADVISORY COMMITTEE	1-7
1.3.1	Status	1-7
1.3.2	Composition	1-7
1.3.3	Mission	1-7
1.3.4	Functions	1-7
1.3.5	Staff Support	1-7
1.3.6	Internal Mechanisms	1-7
1.4	INTERNAL MECHANISMS OF THE IRAC	1-8
1.4.1	Substructure	1-8
1.4.2	Bylaws	1-8
1.5	SPECTRUM PLANNING AND POLICY ADVISORY COMMITTEE	1-17
1.5.1	Establishment	1-17
1.5.2	Objectives and Duties	1-17
1.5.3	Members and Chairperson	1-18
1.5.4	Administrative Provisions	1-18
1.5.5	Duration	1-18
Chapter 2	Telecommunication Policy	2-1
2.1	OBJECTIVES FOR THE USE OF THE RADIO SPECTRUM APPLYING TO AGENCIES AND ESTABLISHMENTS OF THE FEDERAL GOVERNMENT	2-1
2.2	FORMULATION OF TELECOMMUNICATIONS POLICY	2-2
2.3	TELECOMMUNICATIONS POLICY APPLYING TO AGENCIES AND ESTABLISHMENTS OF THE FEDERAL GOVERNMENT	2-3
2.3.1	General	2-3
2.3.2	Functions to be Achieved	2-3
2.3.3	Government Use of Commercial Telecommunication Service	2-4
2.3.4	Use of Space Radiocommunication Techniques in the Aeronautical Services	2-5
2.3.5	Role of Leadership by the Government	2-5
2.3.6	Radio Spectrum Administration	2-5
2.3.7	Spurious Emissions	2-6
2.3.8	Ionosphere Sounders	2-6
2.3.9	Safety Service	2-6
2.3.10	Use of Spectrum-Conserving Methods for Radio Communication Systems	2-6
2.3.11	Protection of Classified and Sensitive Unclassified Information	2-7

2.3.12 Proof of Compliance with FCC Licensing Requirements	2-7
Chapter 3 International Matters	3-1
3.1 TREATIES AND AGREEMENTS	3-1
3.2 THE INTERNATIONAL TELECOMMUNICATION UNION	3-1
3.2.1 Origin and Evolution	3-1
3.2.2 Purposes of the Union	3-2
3.2.3 Structure of the Union	3-3
3.2.4 ITU Membership	3-3
3.2.5 Plenipotentiary Conference	3-3
3.2.6 The Council	3-3
3.2.7 General Secretariat	3-3
3.2.8 World Conferences on International Telecommunications	3-4
3.2.9 Radiocommunication Sector	3-4
3.2.10 Telecommunication Standardization Sector	3-6
3.2.11 Telecommunication Development Sector	3-6
3.2.12 Organization Chart of the ITU	3-8
3.3 SUBMISSION OF INFORMATION TO THE ITU	3-9
3.3.1 Notification of Frequency Assignments	3-9
3.3.2 Provision of Information Regarding Satellite Networks in Planned Satellite Systems	3-9
3.4 UNITED STATES-CANADA COORDINATION AGREEMENT	3-10
3.4.1 General	3-10
3.4.2 Index to the Technical Annex	3-10
3.4.3 No. 228 of the ITU Radio Regulations Stations designed to use ionospheric scatter may operate only subject to agreements between administrations concerned and those whose services, operating in accordance with the Table, may be affected.	3-12
3.4.4 Text of Arrangement B	3-12
3.4.5 Text of Arrangement C	3-13
3.4.6 Text of Arrangement D	3-14
3.4.7 Arrangement E-Between the Department of Communications of Canada and the National Telecommunications and Information Administration and the Federal Communications Commission of the United States Concerning the Use of the 406.1 MHz to 430 MHz Band in Canada-United States Border Areas.	3-16
3.5 FOREIGN REPORTS TO FCC OF INTERFERENCE FROM U.S. GOVERNMENT STATIONS	3-26
3.6 PROCEDURE FOR RESOLVING HARMFUL INTERFERENCE FROM CANADIAN STATIONS	3-26
3.7 APPLICATIONS TO OPERATE WITHIN THE INMARSAT SYSTEM	3-26
3.8 INTERNATIONAL AGREEMENTS	3-26

3.9	UNITED STATES-MEXICO COORDINATION ARRANGEMENTS	3-26
3.9.1	General	3-26
3.9.2	Agreement Between the Government of the United States of America and the Government of the United Mexican States Concerning the Allocation and Use of Frequency Bands by Terrestrial Non-broadcasting Radiocommunication Services along the Common Border	3-27
3.9.3	Protocol 1 Concerning the Allocation and Use of the Channels in the 220-222 MHz Band for Land Mobile Services along the Common Border	3-30
3.9.4	Protocol 6 Concerning the Allotment and Use of Channels in the 932-932.5 and 941-941.5 MHz Bands for Fixed Point-to-multipoint Services along the Common Border	3-40
3.9.5	Protocol 9 Concerning the Use of Bands Allocated to the Aeronautical Radio-navigation and Aeronautical Communications Services Along the Common Border.	3-43
3.9.6	Protocol 10 Concerning the Use of Channels in the 932.5-935 MHz and the 941.5-944 MHz Bands for Fixed Point-to-point Services Along the Common Border	3-46
3.9.7	Administrative Arrangement Between the United States of America and the United Mexican States Concerning Frequencies Used by the International Boundary and Water Commission	3-49
3.9.8	U.S. and Mexican Special Purpose Operations	3-55
3.9.9	Interference Resolution.	3-55
Chapter 4	Allocations, Allotments and Plans	4-1
4.1	FREQUENCY ALLOCATIONS	4-1
4.1.1	ITU Table of Frequency Allocations	4-1
4.1.2	National Table of Frequency Allocations	4-1
4.1.3	U.S. Government Table of Frequency Allocations	4-1
4.2	FREQUENCY ALLOTMENTS	4-162
4.2.1	Allotment of 27575 and 27585 kHz for Short-Distance Low-Power Service	4-162
4.2.2	Allotments in the Band 1710-1850 MHz for Fixed Security Surveillance Systems	4-162
4.2.3	Allotment of 163.100, 418.050, and 418.575 MHz for Wide Area Use	4-162
4.2.4	Allotment of 168.350, 408.400, and 418.075 MHz for Common Use Frequencies	4-163
4.2.5	Allotments for Wide-Area, Common-Use Frequencies	4-164
4.2.6	Allotments for Local-Area, Common-Use Frequencies	4-165
4.3	FREQUENCY PLANS	4-166
4.3.1	CW Phase Comparison Radiolocation Plan	4-166
4.3.2	Plan for Wireless Microphones in the Band 162-174 MHz	4-166
4.3.3	Plan for Hydrologic and Meteorological Operations in the Bands 162-174 and 406.1-420 MHz	4-166
4.3.4	Telemetry Plans	4-167
4.3.5	VHF/UHF Plan for Aeronautical Radionavigation	4-168
4.3.6	Channeling Plan for Assignments in the Band 29.89-50 MHz	4-175
4.3.7	Channeling Plan for Assignments in the Band 162-174 MHz (25 kHz Plan)	4-176
4.3.7A	Channeling Plan for Assignments in the Band 162-174 MHz (12.5 kHz Plan)	4-178
4.3.8	Channeling Plan for Splinter Channel Assignments in the Band 162-174 MHz (25 kHz Plan)	4-181

4.3.8A	Channeling Plan for Low Power Non-Voice Assignments in the Band 162-174 MHz (12.5 kHz Plan)	4-181
4.3.9	Channeling Plan for Assignments in the Band 406.1-420 MHz	4-182
4.3.10	Channeling Plan for Splinter Channel Assignments in the Band 406.1-420 MHz . .	4-191
4.3.11	Plan for Bio-Medical Telemetry and Medical Radiocommunication	4-192
4.3.12	Channeling Plan for Assignments in the Fixed Service in the 14500.0 to 14714.5 and 15136.5 to 15350.0 MHz	4-194
4.3.13	Channeling Plan for Assignments in the Maritime Mobile Service in the Bands 4000-4063 and 8100-8195 kHz	4-195
4.3.14	Channeling Plan for Assignments in the Fixed Service in the Bands 932-935 MHz and 941-944 MHz	4-196
4.3.15	Channeling Plan for Land Mobile Assignments in the Band 220-222 MHz	4-198
4.3.16	Plans for Interagency Law Enforcement and Incident Response Operations in the Bands 162-174 MHz and 406.1-420 MHz	4-201
Chapter 5	Spectrum Standards	5-1
5.1	GENERAL	5-1
5.1.1	Introduction	5-1
5.1.2	Consequences of Nonconformance with the Provisions of this Chapter	5-1
5.1.3	Agency Procurement Specifications	5-1
5.1.4	Measurement Methods	5-1
5.1.5	Terminology	5-1
5.2	FREQUENCY TOLERANCES AND UNWANTED EMISSIONS	5-2
5.2.1	Table of Frequency Tolerances	5-2
5.2.2	Location of Standards for Levels of Unwanted Emissions	5-8
5.3	FIXED AND MOBILE STATIONS	5-10
5.3.1	HF Single Sideband and Independent Sideband Equipments (2-29.7 MHz)	5-10
5.3.2	Maritime Mobile Stations using FM (150.8-162.0125 MHz)	5-12
5.3.3	Fixed Services (406.1-420 MHz Band, the 932-935/941-944 MHz Bands, and the 1710 MHz-15.35 GHz Frequency Range)	5-12
5.3.4	Land Mobile, Single Channel Narrowband Operations (220-222 MHz Band)	5-15
5.3.5	Standards for Fixed and Mobile Analog or Digital FM/PM Operations(29.7-50, 138-150.8, 162-174, and 406.1-420 MHz Bands)	5-16
5.3.6	Low Power Channels and Splinter Channels (162-174 MHz Band)	5-19
5.3.7	Telemetry, Terrestrial (1435-1535, 2200-2290 and 2310-2390 MHz Bands)	5-19
5.3.8	Low Power Transmit (21.8-22.0 and 23.0-23.2 GHz Band Segments)	5-20
5.4	DISTRESS AND SAFETY COMMUNICATIONS	5-20
5.5	RADAR SPECTRUM ENGINEERING CRITERIA (RSEC)	5-21
5.5.1	General including RSEC-A	5-21
5.5.2	Criteria B	5-25
5.5.3	Criteria C	5-26
5.5.4	Criteria D	5-28
5.5.5	Criteria E	5-30

5.6	SPACE SERVICES	5-33
5.6.1	General	5-33
5.6.2	Unwanted Emission Standards for Earth and Space Stations Operating in the Frequency Range 470-960 MHz:	5-33
5.6.3	Unwanted Emission Standards for Earth and Space Stations Operating 960 MHz and above:	5-33
Chapter 6	Definitions and Particulars of Assignments	6-1
6.1	DEFINITIONS	6-1
6.1.1	Special Terms (General)	6-1
6.1.2	Stations (alphabetical by classes)	6-16
6.1.3	Stations (alphabetical by symbols)	6-21
6.1.4	Table of Services, Station Classes, and Stations	6-27
6.2	FREQUENCY NOMENCLATURE	6-30
6.3	EMISSION DESIGNATORS	6-30
6.3.1	Classification of Emissions	6-30
6.3.2	Necessary Bandwidth	6-30
6.4	CLASSES OF EXPERIMENTAL STATIONS	6-31
6.5	CALL SIGNS	6-31
6.5.1	International Provisions	6-31
6.5.2	Use of Call Signs	6-31
6.5.3	Obtaining Call Signs	6-32
6.6	MARITIME SERVICE IDENTITIES	6-32
Chapter 7	Authorized Frequency Usage	7-1
7.0	GENERAL	7-1
7.1	LASERS AND OTHER SYSTEMS THAT OPERATE ABOVE 3000 GHz	7-1
7.2	USE OF FREQUENCIES CONTAINED IN THE LIST OF FREQUENCY ASSIGNMENTS TO GOVERNMENT RADIO STATIONS	7-1
7.3	USE OF FREQUENCIES FOR EMERGENCY, DISASTER, OR WAR COMMUNICATIONS	7-1
7.3.1	Emergency Communications	7-1
7.3.2	Disaster Communications	7-1
7.3.3	War Emergency Communications	7-2
7.3.4	Emergency Use of Non-Government Frequencies	7-2
7.3.5	Emergency Use of Government HF Frequencies for the Shared Resources (SHARES) Program	7-3

7.4	USE OF FREQUENCIES BY FIXED AND LAND STATIONS	7-3
7.5	USE OF FREQUENCIES BY MOBILE STATIONS	7-3
7.5.1	Frequencies Assigned to Government Stations in the Mobile Service and Mobile Earth Stations	7-3
7.5.2	Frequencies Authorized by the FCC for Ship Stations	7-3
7.5.3	Frequencies for the Safety of Life and Property	7-3
7.5.4	Frequencies for Coordinating Search and Rescue Operations	7-4
7.5.5	Coast Station Frequencies	7-5
7.5.6	Frequencies for Marine Environmental Protection Operations	7-5
7.5.7	Ship Station Frequencies in the Bands 4000-4063 and 8100-8195 kHz	7-5
7.6	USE OF FREQUENCIES BY AIRCRAFT STATIONS	7-5
7.7	USE OF FREQUENCIES BY MANNED SPACECRAFT	7-6
7.8	PURCHASE AND USE OF NON-LICENSED DEVICES	7-6
7.9	DEVELOPMENT AND USE OF NON-LICENSED DEVICES	7-6
7.10	USE OF FREQUENCIES BY INDUSTRIAL, SCIENTIFIC, AND MEDICAL (ISM) EQUIPMENT	7-6
7.10.1	Operation on Particular Frequencies Designated for ISM Equipment	7-7
7.10.2	Operation on Frequencies Other than Those Designated for ISM Equipment	7-7
7.11	USE OF FREQUENCIES BY CERTAIN EXPERIMENTAL STATIONS	7-8
7.12	USE OF FREQUENCIES AUTHORIZED TO NON-GOVERNMENT STATIONS UNDER PART 90 OF THE FCC RULES	7-15
7.13	MILITARY COMMUNICATIONS UNDER APPENDIX S13 (Part A2), INTERNATIONAL TELECOMMUNICATION CONVENTION	7-15
7.14	USE OF FREQUENCIES FOR THE PERFORMANCE OF ELECTRONIC ATTACK TEST, TRAINING, AND EXERCISE OPERATIONS	7-15
7.15	MILITARY COMMUNICATIONS FOR TACTICAL AND TRAINING OPERATIONS	7-16
7.15.1	Military Communications in the Bands 3500-4000, 20010-22000, and 22855-24990 kHz for Tactical and Training Operations	7-16
7.15.2	Military Communications in the Broadcast Bands between 4 and 27 MHz, the Maritime Mobile Band between 4.005 and 4.063 MHz, and Specified Frequencies between 2 and 27 MHz for Tactical and Training Operations	7-16
7.15.3	Military Communications in non-Government Bands Above 25 MHz for Tactical and Training Operations	7-17
7.15.4	Military Communications in the Government Bands Between 30 and 50 MHz for Tactical and Training Operations	7-22
7.15.5	Military Sensor Training	7-22

7.16	(RESERVED)	7-22
7.17	MILITARY COMMUNICATIONS AT TEST RANGES IN NON-GOVERNMENT BANDS ABOVE 25 MHz	7-22
7.17.1	Locations	7-22
7.17.2	Frequency Bands	7-23
7.17.3	Conditions	7-23
7.17.4	Coordination	7-23
7.17.5	Frequency Assignment Lists	7-24
7.18	MILITARY TELEMETERING AND TERRESTRIAL TELECOMMAND IN RADIOLOCATION BANDS	7-24
7.19	(RESERVED)	7-24
7.20	USE OF NON-GOVERNMENT FREQUENCIES BY THE FCC FIELD OPERATIONS BUREAU	7-24
7.21	TEMPEST ZONE TESTING OF PHYSICAL FACILITIES	7-24
7.22	USE OF FREQUENCIES 10.525 GHz AND 24.150 GHz OR THE BAND 33.4-36.0 GHz FOR RADIOLOCATION DEVICES	7-25
7.23	DOMESTIC USE BY THE FEDERAL GOVERNMENT OF COMMERCIALY OFFERED MOBILE-SATELLITE SERVICES	7-25
Chapter 8	Procedures and Principles for the Assignment and Coordination of Frequencies	8-1
8.1	AUTHORIZING FREQUENCY USAGE	8-1
8.1.1	General Procedure for Authorizing Frequency Usage	8-1
8.1.2	Authorizing Frequency Assignments to Stations of Foreign Governments in Washington, D.C.	8-2
8.2	FREQUENCY ASSIGNMENT PRINCIPLES	8-3
8.2.1	Frequency Sharing	8-3
8.2.2	Planned Frequency Utilization	8-3
8.2.3	Consideration of Applications	8-3
8.2.4	Justification for Frequency Assignments	8-4
8.2.5	Withholding Funds Pending Availability of Frequency Support	8-4
8.2.6	Programs to Determine How the Spectrum is Used	8-5
8.2.7	Notification of Discontinuance of Service	8-6
8.2.8	Stations Located in Close Geographic Proximity	8-6
8.2.9	Authorized Area of Operations of Mobile Stations	8-6
8.2.10	Relative Priority of Frequency Assignments	8-6
8.2.11	Use of Radio Frequencies Below 30 MHz for Domestic Fixed Service	8-7
8.2.12	Explanation of the Term "Tactical and Training"	8-8
8.2.13	Guidance on Use of Frequencies by Stations in Certain HF Bands	8-9

8.2.14 Applications for Frequency Assignments in Bands Allocated to the Radio Astronomy Service	8-10
8.2.15 Referral of Applications Related to the Space Service	8-10
8.2.16 Assigning the Most Heavily Occupied Frequency Channel	8-10
8.2.17 Determining Whether a Station is a Government Station	8-10
8.2.18 Assignment of a Band of Frequencies to a Station	8-11
8.2.19 Limitation of Radiated Power	8-11
8.2.20 Conversion of Fixed Stations to SSB Transmission	8-11
8.2.21 Use of Ionosphere Sounders	8-11
8.2.22 Use of Ionosphere Sounders for Purposes Other Than Those Mentioned in Section 8.2.21	8-12
8.2.23 Minimum Data Recommended for Inclusion on Applications for Antenna Testing Assignments Above 30 MHz	8-12
8.2.24 Use of Frequencies in the Bands Between 2850 and 22000 kHz Allocated Exclusively to the Aeronautical Mobile Service	8-12
8.2.25 Use of Frequency Diversity for LOS Transmissions in the Bands Allocated to the Fixed Service Above 1710 MHz	8-15
8.2.26 Use of Radio Frequencies to be in Accordance with ITU Provisions	8-15
8.2.27 Experimental Use of Certain Radio Spectrum Experimental use of any shared Government/ non-Government frequency	8-15
8.2.28 Radiation Hazards	8-15
8.2.29 Use of Frequencies by Stations in the Maritime Mobile Service	8-16
8.2.30 Procedure in a Case of Harmful Interference	8-23
8.2.31 Conversion of Stations in the Aeronautical Mobile Service to SSB or ISB Transmission	8-28
8.2.32 Control of Emissions from Space Stations	8-28
8.2.33 Selection of Sites and Frequencies for Earth and Terrestrial Stations in the Bands Above 1 GHz Shared with Equal Rights by Terrestrial Radio-communication and Space Radiocommunication Services	8-28
8.2.34 Power and Direction of Maximum Radiation of Stations in the Fixed or Mobile Service in Certain Bands Shared with Stations in the Space Radio-communication Services (Earth-to-Space) on an Equal Rights Basis	8-28
8.2.35 Power and Direction of Maximum Radiation of Earth Stations in Certain Bands Shared with Stations in the Fixed or Mobile Service	8-29
8.2.36 Power Flux Density Limits	8-30
8.2.37 Control of Interference between Geostationary-Satellite Systems and Non-Synchronous Inclined Orbit-Satellite Systems	8-33
8.2.38 Station Keeping of Space Stations	8-33
8.2.39 Pointing Accuracy of Antennas on Geostationary Satellites	8-34
8.2.40 Space Research in Bands other than those Allocated to the Space Research Service	8-34
8.2.41 (Reserved)	8-34
8.2.42 Wildlife and Ocean Buoy Tracking and Telemetry	8-34
8.2.43 Frequency Assignments to Transportable Earth Stations in the 7300-7750 and 8025-8400 MHz Bands	8-35
8.2.44 Frequency Assignments for Fixed Service Stations in the Band 7900-7975 MHz	8-35
8.2.45 Frequency Assignments to Mobile Stations in Certain Frequency Bands Shared with Passive Sensors	8-35
8.2.46 Radiolocation Operations in the Band 15.7-17.3 GHz	8-36

8.2.47 Development of Flight Test Telemetry in the 1710-1850 MHz Band	8-36
8.2.48 Trunked Land-Mobile Radio Systems	8-36
8.2.48A Land Mobile Radio Communications	8-36
8.2.49 Specialized Mobile Radio Service	8-37
8.2.50 Government/Non-Government Frequency Sharing in the 932-935 MHz and 941- 944 MHz Bands	8-38
8.2.51 Redeployment Requirement of Weather Radars	8-38
8.2.52 Government Use of the Band 220-222 MHz	8-38
8.2.53 Tracking, Telemetry and Telecommand Operation	8-39
8.2.54 Policy on the Use of the Frequency Bands Between 406.1 and 450 MHz by Range Safety Operations	8-39
8.3 COORDINATION OF FREQUENCY USAGE	8-39
8.3.1 Basic Coordination Arrangement Between the IRAC and the FCC	8-39
8.3.2 Coordination of the Policy and Economic Aspects of Certain Government Proposals to Use Non-Government and Amateur Frequency Bands	8-39
8.3.3 Coordination of Frequencies Used for Communication with Non-Government Stations Licensed Under Part 90 of the FCC Rules	8-40
8.3.4 Coordination of Military Use of Non-Government Bands at Test Ranges and for Tactical and Training Operations	8-40
8.3.5 Intra-Military Coordination of Frequency Applications	8-40
8.3.6 Coordination for the Use of Hydrologic Channels in the Bands 162-174 and 406.1- 420 MHz	8-40
8.3.7 Coordination of Meteorological Aids Operations in the Bands 400.15-406 and 1668.4-1700 MHz	8-42
8.3.8 Coordination of Radio Operations in the Vicinity of Fort Huachuca, Arizona	8-43
8.3.9 Coordination of Assignments to Stations (Other than Mobile and Transportable) to be Located in the National Radio Quiet Zone	8-43
8.3.10 Coordination of Assignments to Stations Located in the Vicinity of the United States/Canada Borders	8-44
8.3.11 Coordination of Frequency Usage Outside the United States and Possessions	8-44
8.3.12 Coordination of Assignments for Transmissions by Terrestrial Stations Located Within the Coordination Area of a Receiving Earth Station	8-46
8.3.13 Coordination of Assignments for Transmission or Reception by Earth Stations	8-46
8.3.13A Administrative Due Diligence Applicable to Some Satellite Communication Services	8-48
8.3.13B Due-diligence Procedures	8-48
8.3.13C Administrative Due-diligence Information	8-49
8.3.14 Coordination of Assignments to Earth and Space Stations Which Utilize Geo- stationary-Satellites Networks	8-49
8.3.14A Coordination of Assignments to Stations of Non-geostationary-Satellite Networks in Accordance with No. S9.11A of the ITU Radio Regulations	8-50
8.3.14B Coordination of Assignments to Stations of Non-geostationary-Satellite Networks in Accordance with No. S9.21 of the ITU Radio Regulations	8-52
8.3.15 List of Coordinated Earth Stations	8-53
8.3.16 Procedures for Field Level Coordination of the Use of the Frequencies 1030 and 1090 MHz and Frequencies in the Bands 1215-1400, 2700-2900 and 9000- 9200 MHz	8-55

8.3.17	Procedures for Field Level Coordination, and Coordination with the Aerospace and Flight Test Radio Coordinating Council (AFTRCC), of the Frequency Band 1435-1535 and 2310-2390 MHz	8-56
8.3.18	Notification Procedures for the Proposed Use of AGA Channels in the Bands 29.89-50, 162-174, and 406.1-420 MHz	8-57
8.3.19	Coordination of Assignments in the Band 406.1-410 MHz to Stations (Other Than Mobile) in the Vicinity of Certain Radio Astronomy Observatories	8-58
8.3.20	Coordination of Assignments to Stations (other than Mobile) to be located in the Vicinity of the Table Mountain Radio Receiving Site, Boulder, Colorado	8-58
8.3.21	Coordination of High Frequencies for Projects and Systems Involving Oceanographic Data Transmissions	8-59
8.3.22	(Reserved)	8-59
8.3.23	Coordination of Assignments to Government Broadcasting Stations (other than international broadcasting)	8-59
8.3.24	Coordination of Frequencies Used for Communications with Non-Government Citizens Band Stations	8-60
8.3.25	Coordination Procedures For the 932-935 MHz and 941-944 MHz Bands	8-61
8.3.26	Coordination of Federal Radio Operations With DoD Area Frequency Coordinators in Frequency Bands Above 420 MHz	8-61
Chapter 9	Preparation of Applications for Frequency Assignment Action	9-1
9.1	DETERMINING WHEN THE SUBMISSION OF AN APPLICATION IS REQUIRED	9-1
9.1.1	When the Submission of an Application is Required to Obtain Authority to Use a Frequency	9-1
9.1.2	When the Submission of an Application is Not Required to Obtain Authority to Use a Frequency	9-1
9.1.3	When the Submission of an Application is Required for the Notification of the Use of a Frequency	9-1
9.1.4	Applications Required for Private Contractors	9-2
9.2	SPECIAL INSTRUCTIONS CONCERNING CERTAIN APPLICATIONS	9-2
9.2.1	Applications Handled by AAG or MAG	9-2
9.2.2	Applications for Sounder Network Stations or Sounder Prediction Stations	9-3
9.2.3	(Reserved)	9-3
9.2.4	Use of Data Plots and Coordination Contour Maps	9-3
9.3	SUBMISSION OF FAS AGENDA MATERIAL	9-4
9.3.1	Frequency Assignment Applications	9-4
9.3.2	SECRET Documents, Supplemental Material and Administrative Agenda Items	9-4
9.4	SECURITY CLASSIFICATION OF APPLICATIONS	9-4
9.5	(RESERVED)	9-5
9.6	DESCRIPTION OF TYPES OF FREQUENCY ASSIGNMENTS	9-5
9.6.1	Regular Assignment	9-5
9.6.2	(Reserved)	9-5

9.6.3	Temporary Assignment	9-5
9.6.4	Trial Assignment	9-6
9.6.5	Group Assignment	9-6
9.7	FREQUENCY APPLICATION	9-7
9.7.1	Uses of the Application Format	9-7
9.7.2	Rules for the Use of the Application Format	9-7
9.8	PREPARATION OF A NEW OR NOTIFICATION ACTION	9-10
9.8.1	Introduction	9-10
9.8.2	Application Data Requirements	9-10
9.9	USE OF THE CARD FORMAT FOR MODIFICATION, RENEWAL, AND DELETION ACTION	9-55
9.10	USE OF FIELD CODES	9-55
9.11	PREPARATION OF THE CARD FORMAT FOR A MODIFICATION ACTION	9-56
9.12	PREPARATION OF THE CARD FORMAT FOR A RENEWAL ACTION	9-57
9.13	PREPARATION OF THE CARD FORMAT FOR A DELETION ACTION	9-57
9.14	APPLICATIONS CONSIDERED BY THE AERONAUTICAL ASSIGNMENT GROUP (AAG) AND THE MILITARY ASSIGNMENT GROUP (MAG)	9-58
9.14.1	Applications Considered by AAG	9-58
9.14.2	Applications Considered by MAG	9-58
9.15	OTHER GOVERNMENT MASTER FILE (GMF) FIELD CODES	9-59
9.16	FAS AGENDA ACTIONS	9-59
9.16.1	FAS Votes and Agenda Corrections--Directives	9-59
9.16.2	Agency Comments and Voting Procedures	9-61
9.16.3	Agency Votes and Directives on Canadian and Mexican Frequency Assignment Proposals	9-61
9.16.4	Coordination and Referral of Applications for Frequency Assignment Action	9-62
Chapter 10	Procedures for the Review of Telecommunication Systems for Frequency Availability, Electromagnetic Compatibility (EMC), and Telecommunications Service Priority for Radiocommunications (TSP-R)	10-1
10.0	GENERAL	10-1
10.0.1	Avoiding Interference	10-1
10.0.2	Satisfying OMB Circular A-11	10-1
10.0.3	SPS Review of New Systems	10-1
10.0.4	Administering the TSP-R System	10-1

10.0.5 FCC Participation	10-1
10.1 DEFINITIONS	10-2
10.1.1 Telecommunication System	10-2
10.1.2 Telecommunication Subsystem	10-2
10.1.3 Major Modification	10-2
10.1.4 Major Modification	10-2
10.1.5 System Review	10-2
10.1.6 EMC War Emergency Conflicts	10-2
10.2 SCOPE OF PROCEDURE	10-3
10.2.1 Applicability and Limitations	10-3
10.2.2 Experimental Projects	10-3
10.2.3 EW/ECM Threat Simulators	10-3
10.2.4 Individual Stations, Links, or Networks	10-3
10.2.5 Individual Components	10-3
10.2.6 Government Use of the Band 220-222 MHz	10-3
10.2.7 Non-Licensed Devices	10-3
10.3 STAGES OF REVIEW AND SCHEDULING	10-4
10.3.1 Stages of Review	10-4
10.3.2 Scheduling of Reviews	10-4
10.4 RESPONSIBILITIES	10-4
10.4.1 Spectrum Planning Subcommittee (SPS)	10-4
10.4.2 Space Systems Group (SSG) of the SPS	10-5
10.4.3 Frequency Assignment Subcommittee (FAS)	10-5
10.4.4 Technical Subcommittee (TSC)	10-6
10.4.5 Emergency Planning Subcommittee (EPS)	10-6
10.4.6 Government Agencies	10-6
10.4.7 National Telecommunications and Information Administration (NTIA)	10-6
10.5 EMC ANALYSIS SUPPORT	10-7
10.5.1 General	10-7
10.5.2 Types of Analysis	10-7
10.5.3 Prototype EMC Testing	10-8
10.6 GENERAL DATA REQUIREMENTS	10-8
10.6.1 Minimum Data Required	10-8
10.6.2 Submission of Additional Data	10-8
10.6.3 Upgrading of Data Previously Provided	10-8
10.6.4 Changes to Submissions	10-8
10.6.5 Selective Upgrading of Data	10-8
10.7 SPECIFIC DATA REQUIREMENTS	10-8
10.7.1 Cover Letter	10-9

10.7.2 Attachment 1	10-9
10.7.3 Attachment 2 -- For Space Systems	10-9
10.7.4 Attachment 2 -- For Terrestrial Systems (all stages)	10-10
10.7.5 Attachment 3 -- Related Analysis Data	10-10
10.7.6 Attachment 4 -- Equipment Characteristics:	10-10
10.7.7 Instructions for Completing the Transmitter Characteristics Form (NTIA-33)	10-11
10.7.8 Instructions for Completing the Receiver Characteristics Form (NTIA-34)	10-12
10.7.9 Instructions for Completing the Antenna Characteristics Form (NTIA-35)	10-14
10.8 TRUNKED LAND MOBILE DATA REQUIREMENTS	10-18
10.8.1 Requests for New Trunked Systems	10-18
10.8.2 Requests for Expansion/Additional Channels	10-18
10.8.3 Trunked System Usage Reports	10-19
10.8.4 Guidelines Regarding Certification of Spectrum Support and Usage Reports for Trunked Systems	10-19
10.8.5 Loading Criteria for Trunked Radio Systems	10-20
10.9 LAND MOBILE SYSTEM DATA REQUIREMENTS	10-20
10.10 ULTRA-WIDE BAND RADARS	10-20
10.10.1 Frequency Availability	10-20
10.10.2 Electromagnetic Capability	10-20
10.10.3 Requests for Spectrum Support	10-21
Chapter 11 Public Access to the Federal Spectrum Management Process	11-1
11.1 PREFACE	11-1
11.2 PLANNING PRESENTATIONS TO THE IRAC AND SPECTRUM MANAGEMENT OFFICIALS	11-1
11.2.1 Presentations to the IRAC	11-1
11.2.2 Announcement of Presentation by the Public	11-1
11.3 REQUESTING FEDERAL GOVERNMENT SPECTRUM MANAGEMENT INFORMATION	11-2
11.3.1 Policy	11-2
11.3.2 Guidance	11-2
11.4 REQUESTING ACCESS TO SPECTRUM ALLOCATED FOR FEDERAL GOVERNMENT USE	11-2
11.4.1 Policy	11-2
11.4.2 Guidance	11-2
11.5 PUBLICATION OF MAJOR FEDERAL SPECTRUM MANAGEMENT PRO- POSALS AND DECISIONS	11-3

ANNEX A	Record Notes	A-1
ANNEX B	Data and Procedures for Assessing Interactions Among Stations in the Space and Terrestrial Services	B-1
ANNEX C	(Reserved)	
ANNEX D	Procedure for Field Level Selection and Coordination of the Use of Radio Frequencies	D-1
ANNEX E	Guidance for Submission of INMARSAT Commissioning Applications	E-1
ANNEX F	Frequency Assignment Review Procedure	F-1
ANNEX G	Abbreviations	G-1
ANNEX H	Assignment Guide for Maritime Mobile Bands 4-26 MHz	H-1
ANNEX I	Procedure for Evaluating Frequency Proposals in the 162-174 MHz and 406.1-420 MHz Bands	I-1
ANNEX J	Guidance for Determination of Necessary Bandwidth	J-1
ANNEX K	Technical Standards for Federal "Non-Licensed" Devices	K-1
ANNEX L	Freely Associated States	L-1
ANNEX M	Measurement Methods	M-1
1.1	GENERAL	M-1
1.1.1	Introduction	M-1
1.1.2	Measurement Methods	M-1
1.1.3	Resolution Bandwidth	M-1
2.1	MEASUREMENT METHODS	M-1
2.1.1	Fixed and Mobile Services	M-1
2.1.2	Radar Spectrum Engineering Criteria (RSEC)	M-3
ANNEX N	Considerations for Federal Travelers Information Stations Operating on 1610 kHz	N-1